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PAUL, HASTINGS, JANOFSKY & WALKER LLP  
875 15th Street, NW  
Washington, DC 20005

EXAMINER
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CUFF, MICHAEL A

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES  
6

7  
8 *Ex parte* NECMETTIN CAN, CHARLES K. CROVITZ,  
9 DEBBI M. TURNER, and RAYFORD K. WHITLEY  
10

11  
12 Appeal 2008-2987  
13 Application 09/944,383  
14 Technology Center 3600  
15

16  
17 Decided: January 26, 2009  
18

19  
20 Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and  
21 BIBHU R. MOHANTY, *Administrative Patent Judges*.  
22 FETTING, *Administrative Patent Judge*.

23 DECISION ON APPEAL

24 STATEMENT OF THE CASE

25 Necmettin Can, Charles K. Crovitz, Debbi M. Turner, and Rayford K. Whitley  
26 (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 35-  
27 37, 48, and 51, the only claims pending in the application on appeal.

1 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

2 We AFFIRM.

3 The Appellants invented a method of using radio frequency identification in  
4 retail operations (Specification: paragraph [0002]).

5 An understanding of the invention can be derived from a reading of exemplary  
6 claim 35, which is reproduced below [bracketed matter and some paragraphing  
7 added].

8 35. A method for tracking consumer interest in merchandising  
9 locations in a retail store, the method comprising:

10 [1] associating a radio frequency identification (RFID) tag with  
11 each garment of a plurality of garments in the retail store;

12 [2] associating each RFID tag with style information of its  
13 associated garment;

14 [3] scanning the RFID tagged garments to determine their  
15 merchandising locations on a sales floor of the retail store;

16 [4] scanning the RFID tagged garments that are taken to a fitting  
17 room of the retail store by a plurality of customers;

18 [5] scanning the RFID tagged garments that are purchased after  
19 being taken to the fitting room;

20 [6] subtracting the RFID tagged garments that are purchased after  
21 being taken to the fitting room from the RFID tagged garments that  
22 are taken to the fitting room to yield tried-on-but-not purchased RFID  
23 tagged garments; and

24 [7] displaying, for a tried-on-but-not-purchased RFID tagged  
25 garment,

26 [a] the frequency with which the tried-on-but-not purchased  
27 RFID tagged garment is tried on,

28 [b] style information of the tried-on-but-not-purchased RFID  
29 tagged garment, and

[c] the merchandising location of the tried-on-but-not-purchased RFID tagged garment.

This appeal arises from the Examiner's Final Rejection, mailed July 6, 2006. The Appellants filed an Appeal Brief in support of the appeal on August 13, 2007. An Examiner's Answer to the Appeal Brief was mailed on November 16, 2007.

### PRIOR ART

The Examiner relies upon the following prior art:

DeTemple	US 5,572,653	November 5, 1996
Issacman	US 6,127,928	October 3, 2000
Suzuki	US 6,313,745 B1	November 6, 2001

### REJECTIONS

Claims 35 and 37 stand rejected under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement.

Claims 35-37, 48, and 51 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Suzuki, Issacman, and DeTemple.

### ISSUES

The issues pertinent to this appeal are

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 35 and 37 under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement.

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 35-37, 48, and 51 under 35 U.S.C. § 103(a) as unpatentable over Suzuki, Issacman, and DeTemple.

The pertinent issue turns on whether Suzuki describes a subtracting step that yields a tried-on-by-not-purchased value and whether Suzuki correlates sales information with product location information and fitting room data.

#### FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

##### *Facts Related to Appellants' Disclosure*

01. The present invention contains software for correlating the fitting room data with other data, such as sales data (Specification paragraph [0028] and Original Claim 27).
02. The fitting room data can be correlated to sales data to distinguish which products that are tried on are purchased (Specification paragraph [0083]).
03. The fitting room data, specifically the tried-on garments data, can also be correlated to the garment's location within the store as a frequency value (Specification paragraph [0083]).

##### *Suzuki*

04. Suzuki is directed towards a system and method for tracking and recognizing merchandise items carried into a fitting room by a customer for providing more efficient customer assistance (column 1, lines 8-10).

1           05. Each merchandise item has an electronic tag for storing the item's  
2           product identifier (column 2, lines 29-31 and column 4, lines 24-26).  
3           The wireless tag is used to determine the location of the product,  
4           including into which fitting room the merchandise has been taken  
5           (column 2 lines 30-35 and figure 9).

6           06. The merchandise product information includes a style, color, and size  
7           field (column 6, lines 36-39 and figure 4).

8           07. The system maintains a purchase and trial history associated with a  
9           customer visit. The customer trial information includes a date/time,  
10          fitting room number, and product identification numbers of each of the  
11          items the customer tried on. The trial history additionally includes  
12          information whether an item taken to the fitting room was purchased  
13          (column 8, lines 42-58, column 9 and lines 9-25, and figure 9).

14          08. The system maintains a purchase and trial history associated with a  
15          product. The information associated with the product purchase and trial  
16          history includes date/time, fitting room number, and customer id  
17          (column 9, lines 16-39 and figure 11).

18          09. Popular items in the store are determined by frequency of an item  
19          taken to the fitting room. This enables the additional ordering of popular  
20          items. Additionally, sales employees are provided with additional sales  
21          training based on the popular items data (column 2, lines 66-67 and  
22          column 3, lines 1-8).

23          10. A display terminal is provided so that an in-store clerk can view the  
24          fitting room data (column 6, lines 11-13).

1           11. Suzuki is concerned with solving the problem of tracking and  
2           analyzing a customer's behavior, including a customer's preference,  
3           tastes, and shopping habits, in order to recommend products to the  
4           customer (column 1, lines 60-66 and column 2, lines 10-15).

5           *Issacman*

6           12. Issacman is directed towards devices and methods for locating  
7           documents and other objects using a computer controlled RF system  
8           (column 1, lines 9-13) in order to analyze data regarding the location of  
9           objects and the retrieval of these objects (column 1, lines 45-50).

10          13. Issacman uses RFID tags attached to objects and scanners to scan the  
11          tags to track the location of objects (column 4, lines 48-60 and column 8,  
12          lines 57-60)

13          *DeTemple*

14          14. DeTemple is directed to an item tracking system which tracks the  
15          position of shopping carts and baskets, and displays pricing, advertising,  
16          and other information at remote display modules (column 1, lines 20-  
17          25).

18          15. DeTemple uses a plurality of price display tags that are mounted  
19          throughout the store at various merchandise locations (column 3, lines 8-  
20          10). Each tag is enabled to communicate with a platform computer  
21          through a transmitter (column 3, lines 13-15). An IR transceiver grid  
22          determines the exact location of the merchandise (column 3, lines 18-  
23          26).

1           16. Customers have a card associated with them. The card has  
2           information about the customer associated to it, including demographic  
3           information and products purchased (column 8, lines 21-30).

4           17. The tracking system includes data on the products purchased and the  
5           shopping cart that is used in purchasing the products (column 9, lines 23-  
6           45). The path of the customer can be tracked based on the tags on the  
7           shopping cart and the products purchased by the customer (column 9,  
8           lines 10-15 and column 9, lines 29-33). This gives an indication of the  
9           traffic areas of the shopping floor (column 9, lines 37-38). Reports  
10          based on collected data, including product price, product location,  
11          advertising, customer demographics, store and product location, and  
12          environment, can be generated to optimize sales (column 9, lines 37-40).

13          18. DeTemple is concerned with solving the problem of analyzing sales  
14          data and customer behavior (column 2, lines 54-64).

15          *Facts Related To The Level Of Skill In The Art*

16          19. Neither the Examiner nor the Appellants has addressed the level of  
17          ordinary skill in the pertinent arts of sales and marketing. We will  
18          therefore consider the cited prior art as representative of the level of  
19          ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355  
20          (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill  
21          in the art does not give rise to reversible error ‘where the prior art itself  
22          reflects an appropriate level and a need for testimony is not shown’”)   
23          (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d  
24          158, 163 (Fed. Cir. 1985)).



### *Facts Related To Secondary Considerations*

20. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

# PRINCIPLES OF LAW

### Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the specification” without importing limitations from the specification into the claims unnecessarily)

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the Specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

1 *Obviousness*

2 A claimed invention is unpatentable if the differences between it and the  
3 prior art are “such that the subject matter as a whole would have been obvious at  
4 the time the invention was made to a person having ordinary skill in the art.”  
5 35 U.S.C. § 103(a) (2000); *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1729-30  
6 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

7 In *Graham*, the Court held that that the obviousness analysis is bottomed on  
8 several basic factual inquiries: “[ (1) ] the scope and content of the prior art are to be  
9 determined; [ (2) ] differences between the prior art and the claims at issue are to be  
10 ascertained; and [ (3) ] the level of ordinary skill in the pertinent art resolved.” 383  
11 U.S. at 17. *See also KSR Int’l v. Teleflex Inc.*, 127 S.Ct. at 1734. “The  
12 combination of familiar elements according to known methods is likely to be  
13 obvious when it does no more than yield predictable results.” *KSR*, at 1739.

14 “When a work is available in one field of endeavor, design incentives and  
15 other market forces can prompt variations of it, either in the same field or a  
16 different one. If a person of ordinary skill can implement a predictable variation,  
17 § 103 likely bars its patentability.” *Id.* at 1740.

18 “For the same reason, if a technique has been used to improve one device,  
19 and a person of ordinary skill in the art would recognize that it would improve  
20 similar devices in the same way, using the technique is obvious unless its actual  
21 application is beyond his or her skill.” *Id.*

22 “Under the correct analysis, any need or problem known in the field of  
23 endeavor at the time of invention and addressed by the patent can provide a reason  
24 for combining the elements in the manner claimed.” *Id.* at 1742.

ANALYSIS

*Claims 35 and 37 rejected under 35 U.S.C. § 112 1<sup>st</sup> paragraph*

The Examiner rejected claims 35 and 37 under 35 U.S.C. § 112, 1st paragraph for failing to provide a written description of the present invention (Answer page 3). Specifically, the Examiner found that the Specification and the original claims failed to provide a written description of the “subtraction” step such that one of ordinary skill in the art would have recognized that the Appellants had possession of the invention (Answer page 3, last paragraph).

The Appellants contend that claims 35 and 37 are fully supported by the Specification (Br. page 6, last paragraph) such that it reasonably conveys to the skilled artisan that the Appellants had possession of the invention. The Appellants point to paragraph [0028] lines 2-8, paragraph [0083] lines 8-13, and original claim 27 to provide support that the Appellants had possession of the invention at the time of filing. Specifically, the Appellants contend that from a disclosure of correlating fitting room data and sales data to identify products that are frequently tried on, but seldom purchased (Specification paragraph [0028] lines 2-8), it would be clear to one of ordinary skill in the art that such a correlation would involve subtracting sales data from fitting room data (Br. page 9, first paragraph).

We agree with the Appellants. The Specification explicitly describes software for identifying products that are frequently tried on, but seldom purchased (FF 01). From this disclosure, one of ordinary skill in the art would have understood that that a value for items tried-on-but-not purchased would be derived by subtracting the set of items-tried-on-and-purchased from the set of items tried on. This operation is known as set subtraction in the arts of computer science and discrete

1 mathematics. As such, one of ordinary skill in the art would have recognized that  
2 the Appellants had possession of the invention at the time.

3 The Appellants have sustained their burden of showing that the Examiner erred  
4 in rejecting claims 35 and 37 under 35 U.S.C. § 112, 1st Paragraph as failing to  
5 comply with the written description requirement.

6 *Claims 35-37, 48, and 51 rejected under 35 U.S.C. § 103(a) as unpatentable over*  
7 *Suzuki, Issacman, and DeTemple*

8 The Appellants argue these claims as a group.

9 Accordingly, we select claim 35 as representative of the group.  
10 37 C.F.R. § 41.37(c)(1)(vii) (2007).

11 The Examiner found that Suzuki described all of the limitations of claim 35  
12 except for limitation [3], limitation [7a], and limitation [7c] (Answer page 4). The  
13 Examiner found that Issacman described limitation [3] (Answer page 5). The  
14 Examiner found that it would have been obvious to modify Suzuki to include this  
15 teaching of Issacman in order to determine an object's location (Answer page 5).  
16 The Examiner further found that DeTemple described limitations [7a] and [7c]  
17 (Answer page 5) and it would have been obvious to modify Suzuki and Issacman  
18 to include DeTemple data collecting and manipulation, including correlating  
19 products with their store location, in order to better understand customer behavior  
20 and increase sales (Answer page 5).

21 The Appellants contend (1) that Suzuki fails to describe the feature of  
22 subtracting purchased garments from tried on garments to yield tried-on-but-not-  
23 purchased garments (Br. page 10, last paragraph) and Issacman and DeTemple fail  
24 to cure this deficiency (Br. page 11, first paragraph), (2) the Examiner did not cite

1 proper motivation to combine Suzuki, Issacman, and DeTemple (Br. page 13-14),  
2 (3) Suzuki, Issacman, and DeTemple fail to describe correlating fitting room data  
3 and sales data (Br. Page 15, second paragraph), (4) Suzuki, Issacman, and  
4 DeTemple fail to describe the displaying step (limitation [7]) (Br. Page 16, first  
5 paragraph), (5) Suzuki and DeTemple fail to describe correlation information for a  
6 plurality of customers (Br. Page 16, last paragraph and Br. 17, first paragraph), and  
7 (6) DeTemple fails to describe any correlation between consumer interest in a  
8 product and the product location (Br. page 18, first paragraph).

9 The Appellants first contend that (1) Suzuki fails to describe the feature of  
10 subtracting purchased garments from tried on garments to yield tried-on-but-not-  
11 purchased garments (Br. page 10, last paragraph) and Issacman and DeTemple fail  
12 to cure this deficiency (Br. page 11, first paragraph). We disagree with the  
13 Appellants. Claim 35 recites the term “subtracting”, which is sufficiently broad to  
14 encompass the functionality of set subtraction. Set subtraction is the operation of  
15 subtracting the members of one set from another. Suzuki describes the collection  
16 of fitting room data, where the fitting room data includes data values for items tried  
17 on and a flag for items that were purchased subsequent to being tried on (FF 07).  
18 In other words, Suzuki collects both values needed to perform the subtraction step.  
19 The flag for items that are purchased effectively subtracts the members that were  
20 purchased from those that were not by removing the members that are flagged.  
21 The processes of flagging data is itself a set subtraction operation that separates  
22 (i.e. subtracts) the flagged members from those not flagged. As such, Suzuki  
23 describes subtracting purchased garments from tried on garments to yield tried-on-  
24 but-not-purchased garments. The Examiner has not relied on Issacman and  
25 DeTemple to describe this limitation and, as such, the contention that Issacman and

1 DeTemple fail to describe this limitation does not persuade us of error on the part  
2 of the Examiner. The reason is because the Appellants respond to the rejection by  
3 attacking the references separately, even though the rejection is based on the  
4 combined teachings of the references. Nonobviousness cannot be established by  
5 attacking the references individually when the rejection is predicated upon a  
6 combination of prior art disclosures. *See In re Merck & Co. Inc.*, 800 F.2d 1091,  
7 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

8 Appellants next contend that (2) the Examiner did not cite proper motivation to  
9 combine Suzuki, Issacman, and DeTemple (Br. page 13-14). We disagree with the  
10 Appellants. DeTemple is concerned with tracking objects and merchandise in  
11 order to generate reports to optimize sales (FF 14 and FF 17). DeTemple  
12 accomplishes this by tracking merchandise with IR transmitters and an IR  
13 transceiver grid to pinpoint the location of merchandise (FF 15). Issacman is also  
14 concerned with the tracking of objects in order to analyze data regarding the  
15 location of objects and the retrieval of these objects (FF 12). Issacman  
16 accomplishes this by attaching radio frequency ID (RFID) tags to objects and using  
17 scanners to track the location of the objects (FF 13). Suzuki is concerned with the  
18 tracking of merchandise (FF 04 and FF 05) and one of ordinary skill in the art  
19 would have been motivated to combine the teachings of DeTemple and Issacman  
20 with Suzuki in order to facilitate the tracking of objects in order to analyze data  
21 and optimize sales. As such, Suzuki, DeTemple, and Issacman are concerned with  
22 the same problem and one of ordinary skill in the art would have been lead to  
23 combine their teachings.

24 The Appellants further contend that (3) Suzuki, Issacman, and DeTemple fail  
25 to describe correlating fitting room data and sales data (Br. Page 15, second

1 paragraph). We disagree with the Appellants. Suzuki describes collecting  
2 information on items that are tried-on and whether these items are purchased (FF  
3 07 and FF 08). Suzuki further correlates this information to sales information by  
4 determining which items are popular items and whether sales personnel are  
5 adequately trained to sell these popular items (FF 09). Thus, Suzuki is correlating  
6 sales data with tried-on data.

7 The Appellants further contend that (4) Suzuki, Issacman, and DeTemple fail  
8 to describe the displaying step (limitation [7]) (Br. Page 16, first paragraph). We  
9 disagree with the Appellants. As discussed above, Suzuki describes a tried-on-but-  
10 not-purchased value. Suzuki further describes displaying this information in an in-  
11 store display panel, including other fitting room data (FF 10). The other fitting  
12 room data includes popular items, which are the items that are frequently tried on  
13 (FF 09), style information associated with products (FF 06), and merchandise  
14 location information such as which room the items are in (FF 05). These values  
15 are recited as displayed in limitation [7] and are described by Suzuki. As such,  
16 Suzuki describes the displaying step, as recited in limitation [7] of claim 35.

17 Appellants further contend that (5) Suzuki and DeTemple fail to describe  
18 correlation information for a plurality of customers (Br. Page 16, last paragraph  
19 and Br. 17, first paragraph). We disagree with the Appellants. Suzuki describes  
20 maintaining a trial and purchase history for each product (FF 08). This is  
21 distinguished from the purchase and trial information maintained for the customer  
22 (as discussed above). Suzuki describes maintaining an audit log for product  
23 purchase and trial which includes information on a customer id that describes  
24 which customer tried-on the product (FF 08). Thus, every customer that takes the  
25 item to a fitting room to try on is logged. As such, Suzuki provides trial

1 information for more than just a single customer and correlates trial information  
2 for a plurality of customers. The Appellants further contend that DeTemple fails to  
3 describe fitting room data as a measure of consumer interest (Br. page 18, last  
4 paragraph). The Examiner does not rely on DeTemple for describing this  
5 limitation, as acknowledged by the Appellants (Br. page 18, last paragraph) and, as  
6 such, this contention does not persuade us of error on the part of the Examiner  
7 because the Appellants respond to the rejection by attacking the references  
8 separately, even though the rejection is based on the combined teachings of the  
9 references. Again, nonobviousness cannot be established by attacking the  
10 references individually when the rejection is predicated upon a combination of  
11 prior art disclosures.

12 The Appellants next contend that (6) DeTemple fails to describe any  
13 correlation between consumer interest in a product and the product location (Br.  
14 page 18, first paragraph). We disagree with the Appellants. DeTemple describes  
15 collecting data by placing tags on shopping carts and products (FF 17). Products  
16 are tracked from their position in the store through the use of grids (FF 15) and this  
17 gives information on the traffic patterns on a shop floor (FF 17). Furthermore,  
18 reports can be generated to correlate product location and sales (FF 17). Sales  
19 reports indicated consumer interest in a product. As such, DeTemple describes a  
20 correlation between product location and consumer interest in a product.

21 The Appellants have not sustained their burden of showing that the Examiner  
22 erred in rejecting claims 35-37, 48, and 51 under 35 U.S.C. §103(a) as  
23 unpatentable over Suzuki, Issacman, and DeTemple.



CONCLUSIONS OF LAW

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 35 and 37 under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement.

The Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 35-37, 48, and 51 under 35 U.S.C. § 103(a) as unpatentable over the prior art.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 35 and 37 under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement is not sustained.
- The rejection of claims 35-37, 48, and 51 under 35 U.S.C. § 103(a) as unpatentable over Suzuki, Issacman, and DeTemple is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

vsh

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